

206070 "SH604000T"

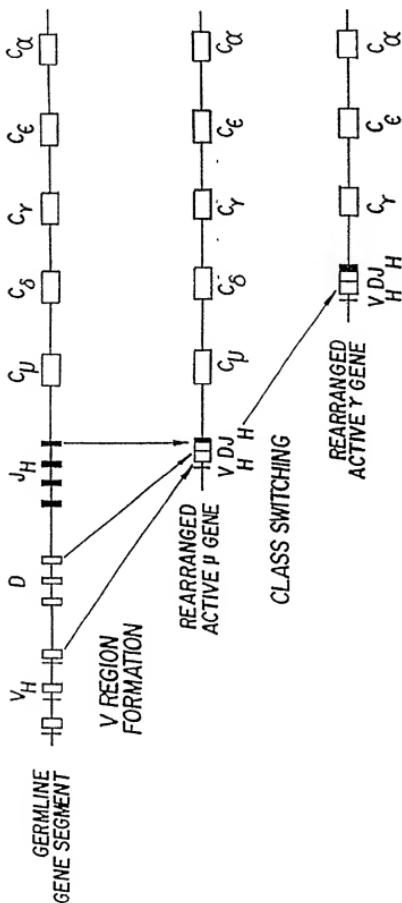


FIG. 1

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/MAC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

2006010 - SHOTD01

Ig heavy chain J-C regionhuman heavy chain J regions

J | CH1

JH1	GCTGAAATCTTCAGCACTGGGGCCAGGGCACCTGGTCACCGTCTCCAG
JH2	CTACTGGTACTTGATCTGGGGCCGTCGGCACCTGGTCACGTCTCCAG
JH3	ATGCTTTGATGTCGGGGCCAAGGGACATGGTCACCGTCTCCAG
JH4	ACTACTTGGACTACTGGGGCCAAGGGACCCCTGGTCACCGTCTCCAG
JH5	ACACTGGTGGACTCTGGGGCCAAGGGACCCCTGGTCACCGTCTCCAG
Consensus	5' GGTATGGACGTCTGGGGCAAGGGACACGGTCACCGTCTCCAG

mouse heavy chain J regions

J | CH1

JH1	TACTGGTACTTCGATGTCGGGGCCAGGGCACCGTACCCGTCCTCTAG
JH2	TACTTGACTCTGGGCCAAGGGCACACTCTCACAGTCTCCAG
JH3	CCTGGTTTGCTTACTGGGGCCAAGGGACTCTGGTCACGTCTCCAG
JH4	TACTGATGACTGGACTCTGGGCCAAGGGACCCCTGTCACCGTCTCCAG
Consensus	TTTGACTCTGGGCCAAGGGACACGGTCACCGTCTCCAG

Ig light chain J-C regionhuman Kappa J region

J | C

JK1	GGACGTTGGCCAAAGGGACCAAGGTGGAAATCAAC
JK2	ACACTTTGGCAGGGACCAAGCTGGAGATCAAC
JK3	TCACTTCCGGCTGGGACCAAGTGGATATCAAC
JK4	TCACTTCCGGCGAGGGACCAAGGTGGAGATCAAC
JK5	TCACTTCCGGCAAGGGACACGACTGGAGATTAAC
Consensus	TTGGCCCAAGGGACCAAGGTGGAGATCAAC

mouse Kappa J region

J | C

JK1	TGGACGTTGGTGGAGGGACCAAGCTGGAAATCAAC
JK2	TACACGTTGGAGGGGACCAAGCTGGAAATAAAC
JK3	TTCACATTCACTGGACAGACTGGAAATAAAC
JK4	TTCACGTTGGCTGGGGACCAAGGTGGAAATAAAC
JK5	CTCACGTTGGCTGGGGACCAAGCTGGAGCTGAAC
Consensus	TTCCGGTGGGGGACCAAGCTGGAAATAAAC
UIG(MJK)	3' TGTTTCGACCTTTATTTCG 5'

human Lambda pseudo J region

J | C

JPSL1	CACATGTTGGCAGCAAGACCCAGCCCACGTCTTAG
-------	-------------------------------------

mouse Lambda J region

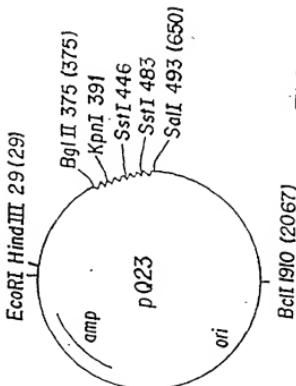
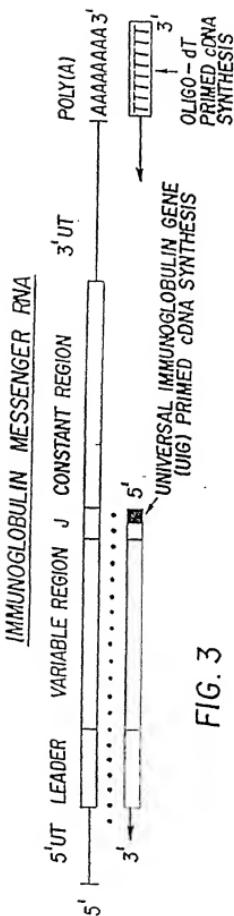
J | C

JL1	TGGGTGTTGGTGGAGGAACCAAAGTACTGTCTAG
JL2	TATGTTTGGCGGTGGAAACCAAGGTCACTGTCTAG
JL3	TTTATTTGGCAGTGGAAACCAAGGTCACTGTCTAG
Consensus	TTGGCGGTGGAAACCAAGGTCACTGTCTAG

FIG. 2

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.00000000/MA/C  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

2050 TO "STRUCTURE"



BclI 910 (2067)

FIG. 5

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/IMAC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

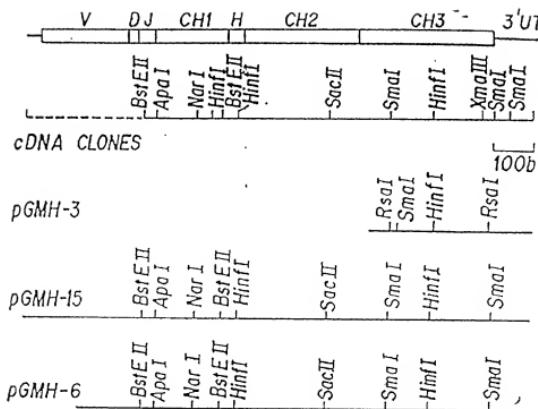


FIG. 4A

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610-0050001(MAC);  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
Title: Modular Assembly of Antibody Genes, Antibodies  
Prepared Thereby and Use

100140945-010902

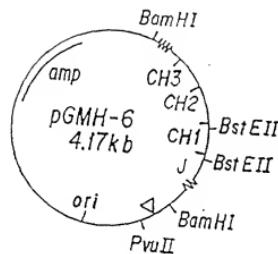


FIG. 4B

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610.0050000/UMAC;  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
Title: Modular Assembly of Antibody Genes, Antibodies  
Prepared Thereby and Use

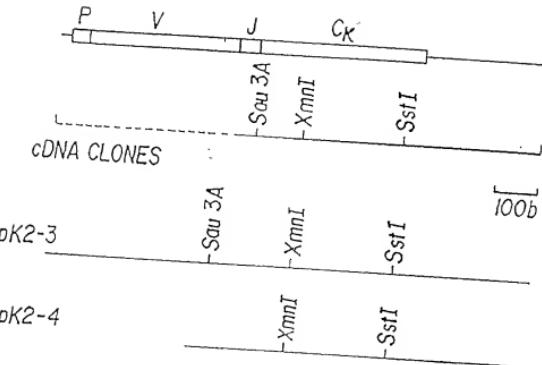


FIG. 6A

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610.005000J/MAC;  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
Title: Modular Assembly of Antibody Genes, Antibodies  
Prepared Thereby and Use

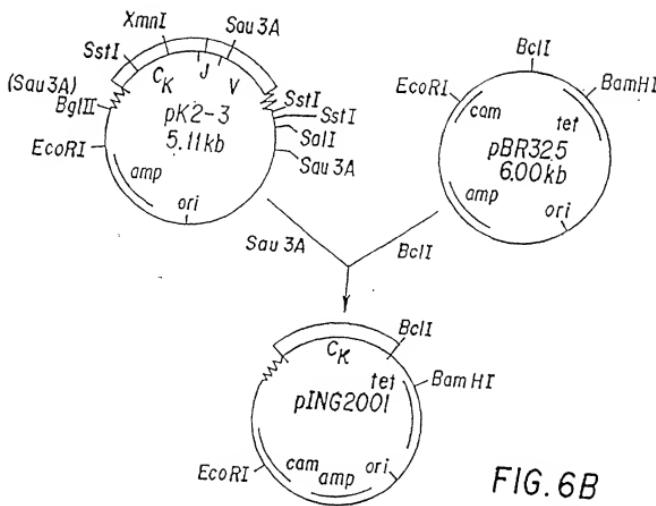


FIG. 6B

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 06100/05000/0AC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

Ig HEAVY CHAIN J-C REGION  
 — J REGION — | — IgG1 CH1 REGION —  
 GGTCACCGCTCCCTCAG CCTCCACCAAGGGCCCATC  
 BstEII

## Ig HEAVY CHAIN J-C REGION

HUMAN IgG1 pCMH-6

## MOUSE HEAVY CHAIN J REGIONS AND PRIMERS

		MISMATCHES				
		N	JH1	JH2	JH3	JH4
JH1	TACTGGTACTTCSATGTCGGCCAGGGACCAAGGTACCCCTCCTCTCAG [MJH1]	GCCAGTGGCAGAGGTGGCT	21	0	4	4
JH2	TACTTTGACTACTGGGCCAAGGCCAACACTCTCACAGTCTCTCAG [M21]	GAGAGTGTCAAGAGTGGT	21	4	1	7
JH3	CCTGGTTTGGTTACTGGGCCAAGGGACTCTGGTCACGTCTCTCTGCAG [MJH3]	ACCAGTGACAGAGAGTGGT	21	4	7	0
	[MJH3-BSTEII]	TCCTGAGACCCAGTGCAGAG	21	3	7	1
	[MJH3-BSTEII(13)]	ACCAAGTGGCAGAG	13	1	4	1
		BstEII				2
JH4	TACTATGCTATGGACTACTGGGGTAAAGGAACCTCAGTACCGCTCCCTCAG [MJH4]	GTCAGTGGCAGAGACTGGT	21	1	4	5
						0

FIG.7A

Appl. No. To Be Assigned. Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000UMAC  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

## Ig KAPPA CHAIN J-C REGION

HUMAN KAPPA pK2-3  
 pING2016E

-J REGION — | — IgK CONSTANT REGION — | —  
 CTGGAGTAAAC GAACTGGTGGACCATCTGTCTCATCTCC  
 TGATCAAAAC GAACTGGCTGGACCATCTGTCTCATCTCC  
 BclI

## MOUSE HEAVY KAPPA J REGIONS AND PRIMERS

JK1 TGGAGCTCGTGGAGCACCACAGCTGGAAATCAAAC  
 [5JK1] GCAGGCCACCTCGTGG

JK2 TACACGTTGGAGGGGGACCAAGCTGGAAATAAAC  
 [JK2BGL11] CCTGCTGGTTCGACCTCTAGATT  
 [5JK2] GTGCAAGCCCTCCCCCTGG BglII

JK4 TTCACTTCGGCTCGGGACAAAGTTGGAAATAAAC  
 [5JK4] GCAAGCCGAGCCCTGT  
 [JK4BGL11] GCCCCCTGTTCAACCTCTAGATT BglII

JK5 CTCAGTTGGTGGCTGGACCAAGCTGGAGCTGAAC  
 [5JK5] GCAAGCCACGACCTCGG  
 [MJK]

## MISMATCHES

	N	JK1	JK2	JK4	JK5
	17	0	3	6	3
	21	3	3	5	3
	17	6	4	0	4
	23	7	6	3	6
	17	3	3	4	0
	19	1	0	2	3

FIG. 7B

MOUSE VARIABLE REGION CONSENSUS PRIMERS

MOUSE HEAVY CHAIN  $\mu$  SEGMENTS

JH1	TACTGGTACTTCGATGTCGGGGCGCAGGGACAC	GGTCACCA	GTCTCCTCA
JH2	TACTTTGACTACTGGGGCCAAGGGACAC	GGTCACCA	GTCTCCTCA
JH3	CCTGGTTGCTTACTGGGGCCAAGGGACAC	GGTCACCA	GTCTCCTCA
JH4	TACTATGCTATGGACTACTGGGGCAAGGGACAC	GGTCACCA	GTCTCCTCA

MOUSE LIGHT CHAIN J SEGMENTS

JK1	TGGACGTTCGGTGGAGGQACC	AAGCTG	GA <del>AT</del> ATCAAA
JK2	TACACGTTGGAGGGGGGACCC	AAGCTG	GA <del>AT</del> ATAAAAA
JK4	TTCACGTTGGCTGGGGACCC	AAGCTG	GA <del>AT</del> ATAAAAA
JK5	CTCACGTTGGTGCTGGGACCC	AAGCTG	GAGCTCAAA

CONSENSUS PRIMER: UIG-K GGGACCGAAGCTT GAG  
HindIII  
 CCCCTGG TTTCGAA CTC  
 3'

pGML60 GGACGGGACC AAGGTG GAGATGAAA  
 -----C-T-----  
 HindIII

MOUSE  $\gamma 2\beta$  J/C JUNCTION PRIMER

FIG. 7D

## HEAVY CHAIN V REGION MODULE GENE SYNTHESIS

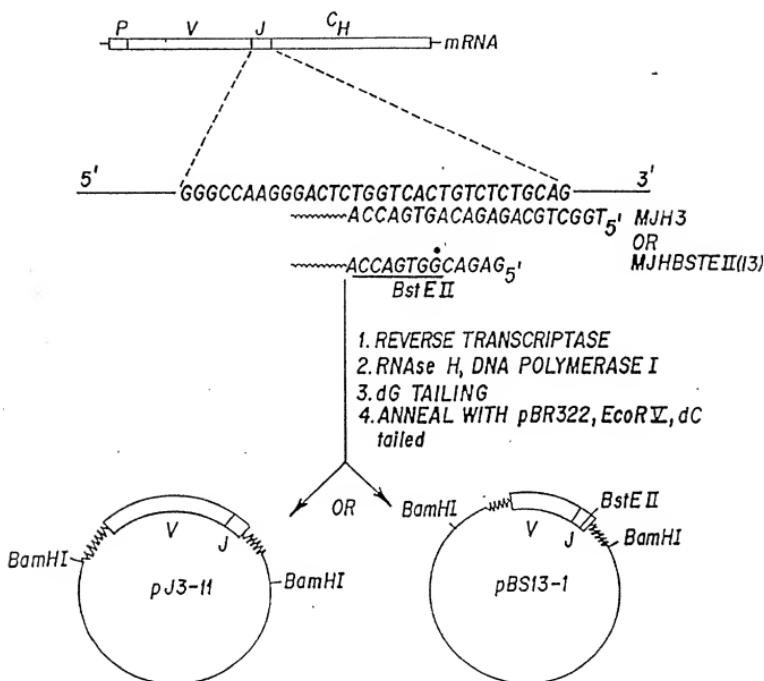
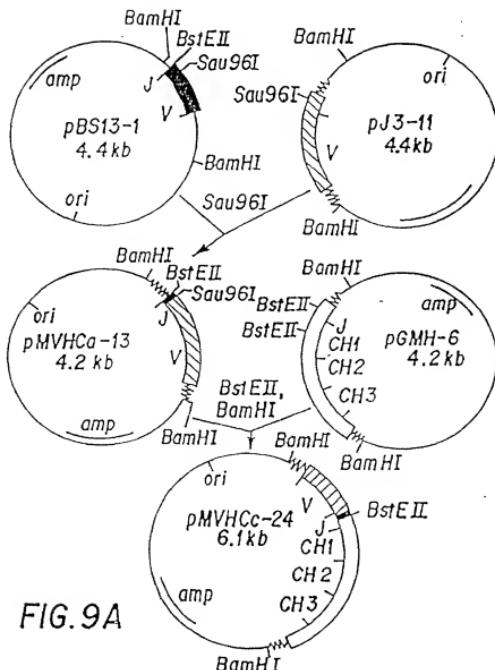


FIG. 8



150-109475 61392

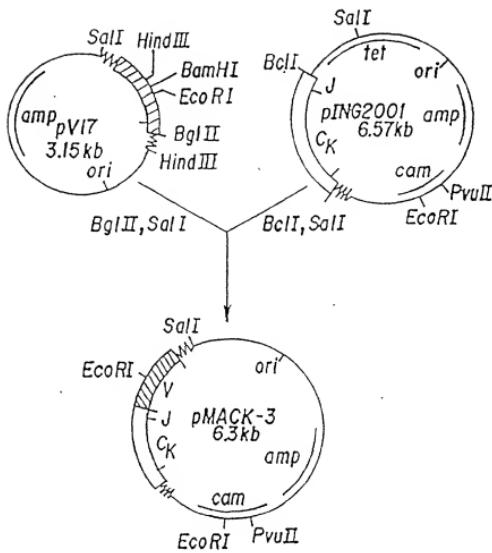


FIG. 9B

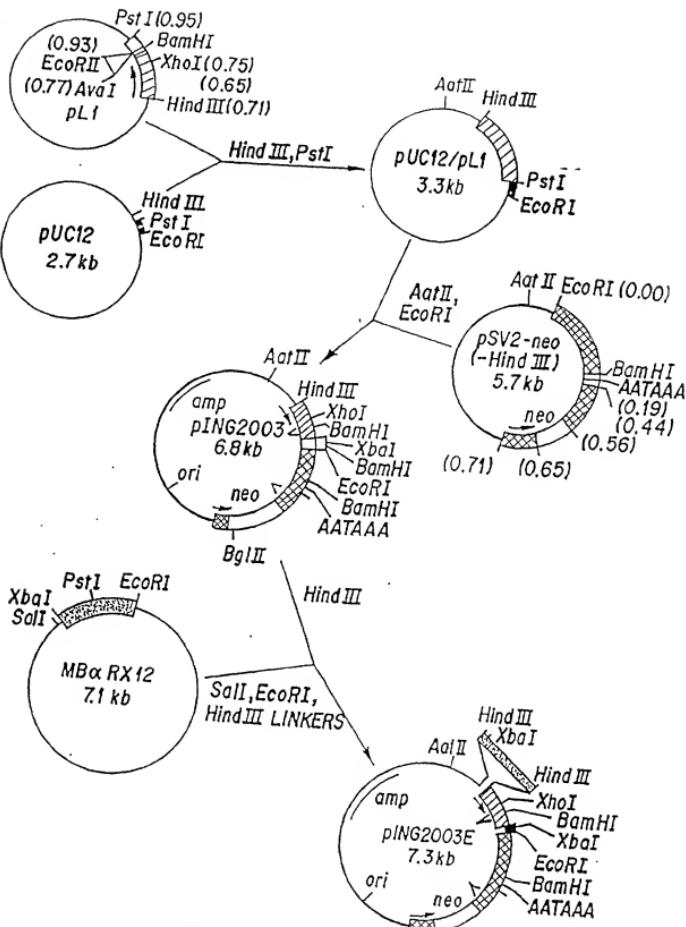


FIG. 10

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20060104 - 5116041001

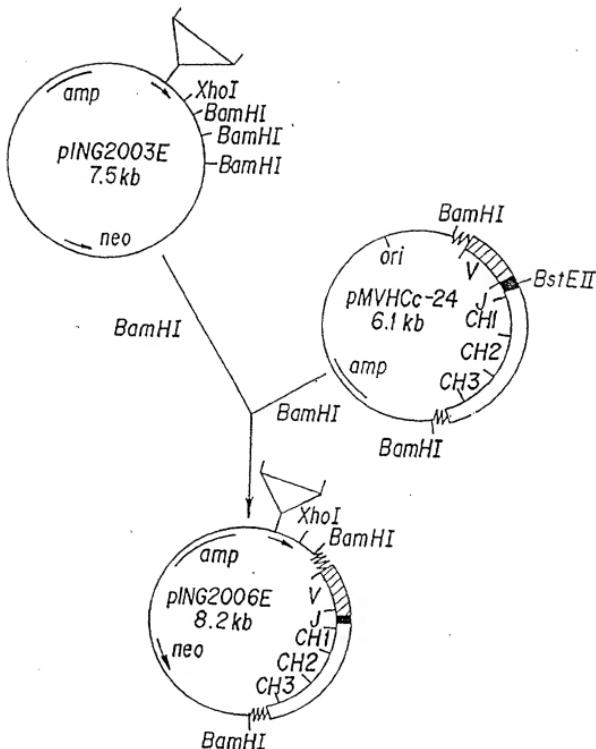


FIG. 11

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/1/MAC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

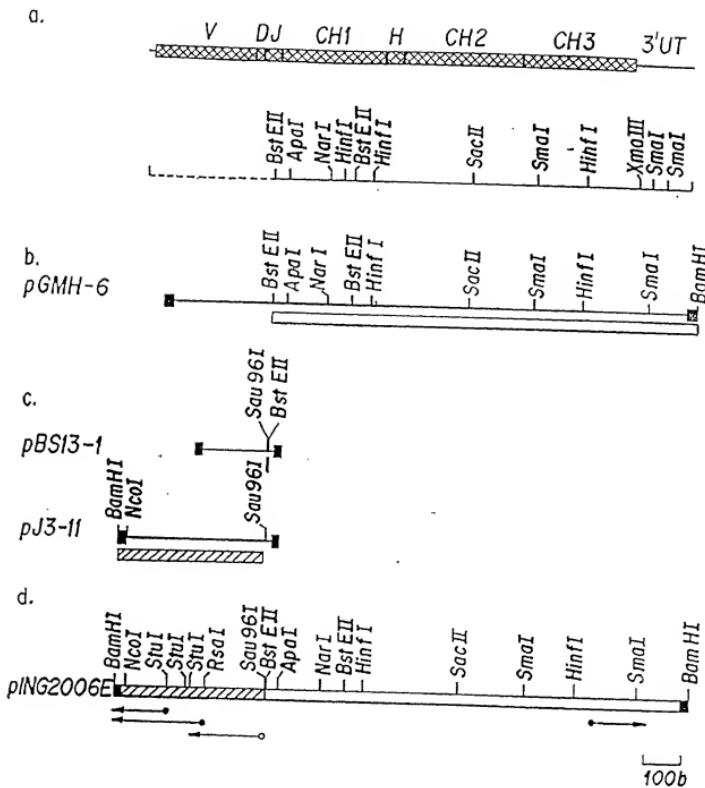


FIG. 12A

pING2006E GGA TCC,CCC ACC ATG GGA TCC AGC TAT ATC ATC CTC 30 MET GLY Trp Ser Tyr Ile Leu Phe Leu Val Ala Thr Ala Arg Asp  
 pING2012E GGA TCT GTC GAC ATG 30 GCA TCT GTC GAC ATG 45  
 Val His Ser Gln Val 2 Gln Leu Gln Pro Gly Ala Glu Leu Val Lys Pro Gly Ala Ser  
 GTC CAC TCC CAG GTC CAA TTG CAG CAG CCT 75 12 17  
 Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr Trp MET His Trp Val  
 GTG AAG GTG TCC TGC AAG GCC TCT GGC TCT 90 105 120  
 Lys Gln Arg Pro Gly Gln Gln Gly Leu Asp Trp Ile Gly Glu Ile Asn Pro Ser Asn Gly Arg  
 AAG CAG AGG CCT GGA CAA GGC CTT GAC 195 210 225 240  
 Thr Asn Tyr Asn Glu Lys Phe Lys Ser Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ala  
 ACT AAT TAC AAT GAG AAG TTC AAG AGC AAG GCC ACA CTC ACT 255 270 285 300  
 Thr Ala Tyr MET Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala  
 ACA GCC TAC ATG CAA CTC AGC AGC 315 330 345 360  
 Ser Tyr Asp Tyr 102 107 112 117  
 TCC TAT GAT TAC GAC TGG TTT GCT TAC TGG GCG ACT 375 390 405 420

BstEII

Leu Val Thr Val Ser Ser Ala  
 CTC GTC ACC GTC TCC TCA 117\*  
 405 420

FIG. 12B

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dist. No. 0610.005000/MAC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

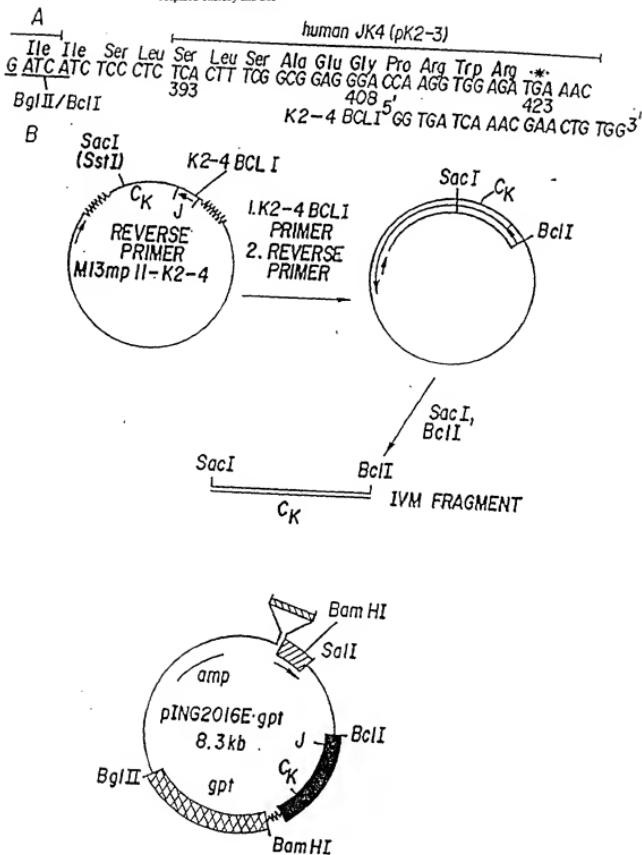


FIG. 13

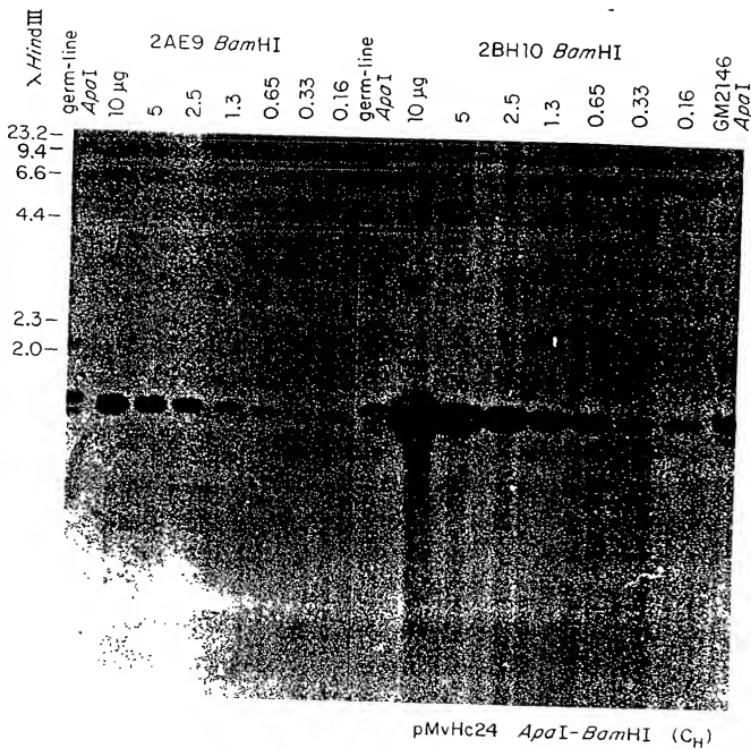


FIG. 14

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610.0050001/MAC;  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
Title: Modular Assembly of Antibody Genes, Antibodies  
Prepared Thereby and Use

FIG. 15

App. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No: 0610.005000/UMAC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

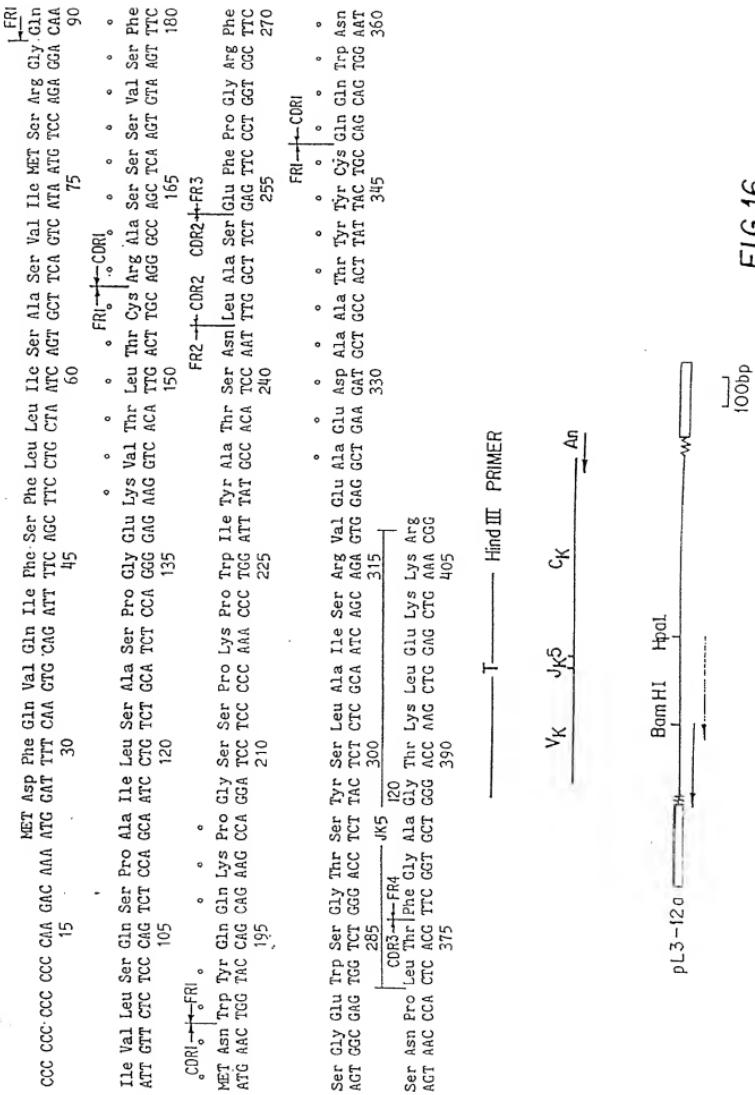


FIG. 16

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/MAC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

L 6VH GG ATC CCC CCC CCC CCC CAG TTT GTC TTA AGG CAC CAC TGA GCC CAA GTC 15  
 pH3-60 GG ATC CCC CCC CCC CCC CAG TTT GTC TTA AGG CAC CAC TGA GCC CAA GTC 17  
 Cl-Δ44 GG ATC CCC CCC CCC CCC CAG TTT GTC TTA AGG CAC CAC TGA GCC CAA GTC 32  
 Cl-Δ21 GG ATC CCC CCC CCC CCC CAG TTT GTC TTA AGG CAC CAC TGA GCC CAA GTC 47  
 MET Asp Trp Leu Trp Asn Leu  
 62  
GG ATC CCC TCT AGG CAC CAC TGA GCC CAA GTC TTA GAC ATC ATG GAT TGG CTC TGG AAC TTG  
GG ATC GAC TCT AGG CAC CAC TGA GCC CAA GTC TTA GAC ATC ATG GAT TGG CTC TGG AAC TTG  
GG ATC GAC TCT AGG CAC CAC TGA GCC CAA GTC TTA GAC ATC ATG GAT TGG CTC TGG AAC TTG  
GG ATC GAC TCT AGG CAC CAC TGA GCC CAA GTC TTA GAC ATC ATG GAT TGG CTC TGG AAC TTG

FIG. 17a

Appl. No To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610.0050001/MAC;  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
Title: Modular Assembly of Antibody Genes, Antibodies  
Prepared Thereby and Use

DISCLOSURE STATEMENT

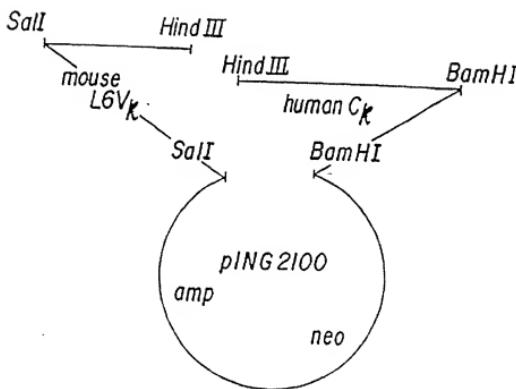


FIG. 18

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610.005000/ MAC;  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
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Prepared Thereby and Use

5' L6V<sub>k</sub>  
-CCCCAAGACAAAATGGATTTTC-  
      |||  
      GTC  
Sal I

FIG. 19A

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/UMAC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

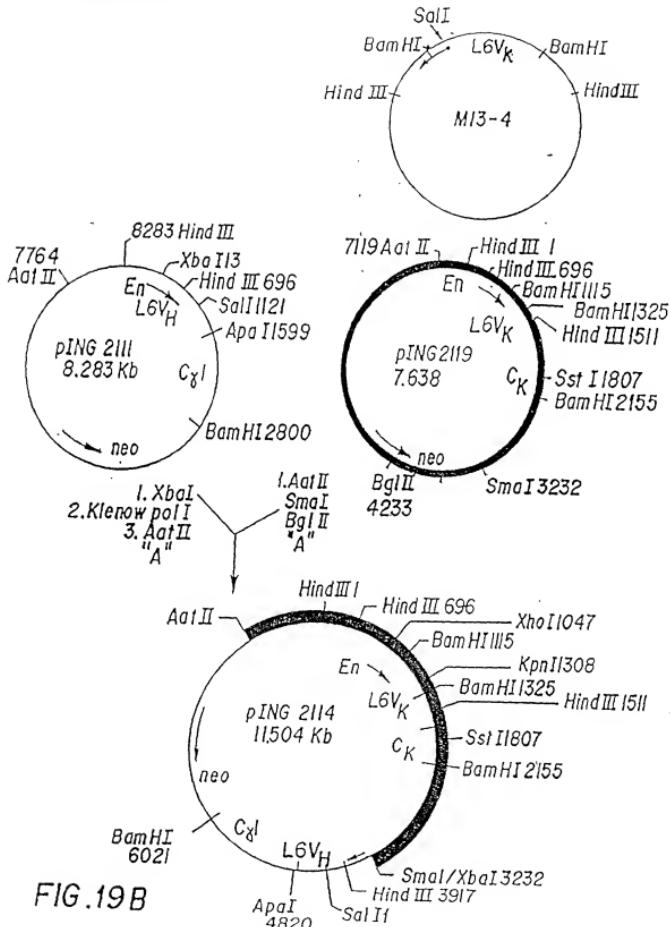


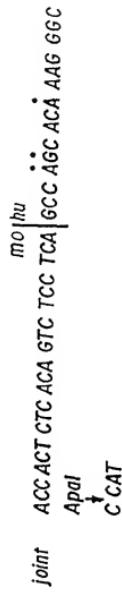
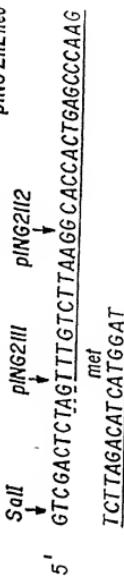
FIG. 19B

Appl. No. To Be Assigned, Group Art Unit: To Be Assigned  
 Dkt. No. 0610.0050000/IMAC;  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

## L6 Chimerae

$V_H$  pH3-6A1 ( $\lambda_K 5'$ ) oligo (dT) clone, BAL - 31 detections 5'. Cx1 APA mutagenesis — pING 2111 neo

pING 2112 neo



$\lambda_K$  p13-12A ( $\lambda_K 5'$ ) oligo (dT) clone,  $\lambda_K$  HindIII mutagenesis, 5' SAL mutagenesis — pING 2119 neo  
 pING 2120 got



FIG. 20

#### 2H7 heavy chain variable sequence

leader

C<sub>33</sub> GTACCTCTCTACAGTCCTGAAGACACTGACTCTAACCATG GGA TTC AGC AGG ATC TTT  
 peptide *Ncol* *FRI*  
 leu phe leu leu ser val thr thr gly val his ser gln ala tyr leu gln  
 CTC CTC CTC CTG TCA GTA ACT ACA GGT GTC CAC TCC CAG GCT TAT CTA CAG  
 gln ser gln ala glu leu val arg pro gly ala ser val lys met ser cys  
 CAG TCT GGG GCT GAG CTG GTG AGG CCT GGG GCC TCA CTG AAG ATG TCC TGC  
 lys ala ser gln tyr thr phe thr ser tyr asn met his trp val lys gln  
 AAG GCT TCT GGC TAC ACA TTT ACC AGT TAC ATT ATG CAC TGG GTA AAG CAG  
 thr pro Qrg gln gly leu glu trp ile gln ala ile tyr pro-gly asn gly  
 ACA CCT AGA CAG GGC CTG GAA TGG ATT GGA GCT ATT TAT CCA GGA AAT GGT  
 asp thr ser tyr asn gln lys phe lys gly lys ala thr leu thr val asp  
 GAT ACT TCC TAC AAT CAG AAG TTC AAG GGC AAG GCC ACA CTG ACT GTC GAC  
 lys ser ser ser thr ala tyr met gln leu ser ser leu thr ser glu asp  
 AAA TCC TCC AGC ACA GCC TAC ATG CAG CTC AGC AGC CTG ACA TCT GAA GAC  
 ser ala val tyr phe cys ala arg val val tyr tyr ser asn ser tyr trp  
 TCT GCG GTC TAT TTC TGT GCA AGA GTG GTG TAC TAT AGT AAC TCT TAC TGG  
 CDR3 | FR4 *J<sub>1</sub>* *FR4* *FR4* *DSP2*  
 tyr phe asp val trp gly thr gly thr val thr val ser  
 .TAC TTC GAT GTC TGG GGC ACA GGG ACC ACG GTC ACC GTC TGG 30  
 ↑ *Bst* EII *J<sub>5</sub>Bst* EII primer

FIG. 21

### 2H7 light chain variable sequence

### leader peptide

met asp phe gln val gln ile phe ser phe leu leu  
 C<sub>23</sub> CCCAAAATTCAAAGACAAAATG GAT TTT CAA GTC CAG ATT TTC AGC TTC CTG CTA  
 GTC SolI primer FRI  
 ile ser ala ser val ile ala arg gly gln ile val leu ser gln ser  
 ATC AGT GCT TCA GTC ATA ATT GCC AGA GGA CAA ATT CTT CTC TCC CAG TCT  
 pro ala ile leu ser ala ser pro gly glu lys val thr met thr cys arg  
 FRI  
 CCA GCA ATC CTG TCT GCA TCT CCA GGG GAG AAG GTC ACA ATG ACT TGC AGG  
 CDR1 CDR1, FRI  
 ala ser ser ser val ser tyr met his trp tyr gln gln lys pro gly ser  
 GCC AGC TCA AGT GTA AGT TAC ATG CAC TGG TAC CAG CAG AAG CCA GGA TCC  
 KpnI  
 ser pro lys pro trp ile tyrosala pro ser asn leu ala ser gly val pro  
 CDR2, FRI, FRI, BamHI  
 TCC CCC AAA CCC TGG ATT TAT GCC CCA TCC AAC CTG GCT TCT GGA GTC CCT  
 ala arg phe ser gly ser gly ser gly the ser tyr ser leu thr ile ser  
 GCT CGC TTC AGT GGC AGT GGG TCT GGG ACC TCT TAC TCT CTC ACA ATC AGC  
 FRI, CDR3  
 arg val glu ala glu asp ala ala thr tyr cys gln gln trp ser phe  
 AGA GTG GAG CCT GAA GAT GCT GCC ACT TAT TAC TGC CAG CAG TGG AGT TTT  
 CDR3, FRI  
 asn pro pro trp phe gly ala gly thr lys leu glu leu lys  
 AAC CCA CCC ACG TTC GGT GCT GGG ACC AAG CTG GAG CTG AAA  
 FRI  
 J<sub>k</sub>HIND III primer

FIG. 22

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/UMAC;  
 Inventor(s): Robison et al.; Tel: 202/371-2600  
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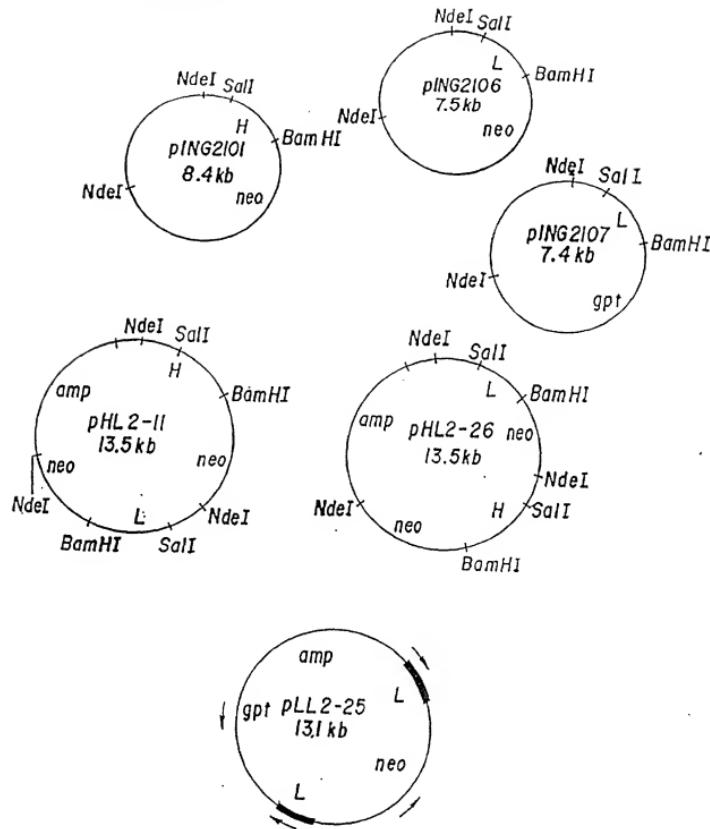


FIG. 23

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
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 Prepared Thereby and Use

## 2H7 Chimerae

$V_H$  pH2-7 ( $J_H$ )  $J_H$   $Bst$   $II$  clone,  $Nco$  cut 5'  $ATG$  —  $pING2101$  neo

5'  
 $\xrightarrow{\text{Sal}II}$   
 met  
 5'  $\xrightarrow{\text{GTC GAC ATG GGA}}$

$join$   
 $\xrightarrow{\text{mo hu}}$   
 $\xrightarrow{\text{Cyr}}$   
 ACG GTC ACC GTC TCT TCA | GCC TCC

$V_K$  pL2-12 ( $J_H$  5') oligo(dT) clone,  $J_K$   $Hind$   $III$  mutagenesis, 5'  $SAL$  mutagenesis —  $\xrightarrow{\text{pING2106 neo}}$   
 $\xrightarrow{\text{pING2107 gpt}}$

5'  
 $\xrightarrow{\text{Sal}II}$   
 met  
 5'  $\xrightarrow{\text{GTC GAC AAA ATG GAT}}$

$join$   
 $\xrightarrow{\text{neo hu}}$   
 $\xrightarrow{\text{CK}}$   
 ACC AAG CT T GAG G A T G AAA | CGA ACT

FIG. 24

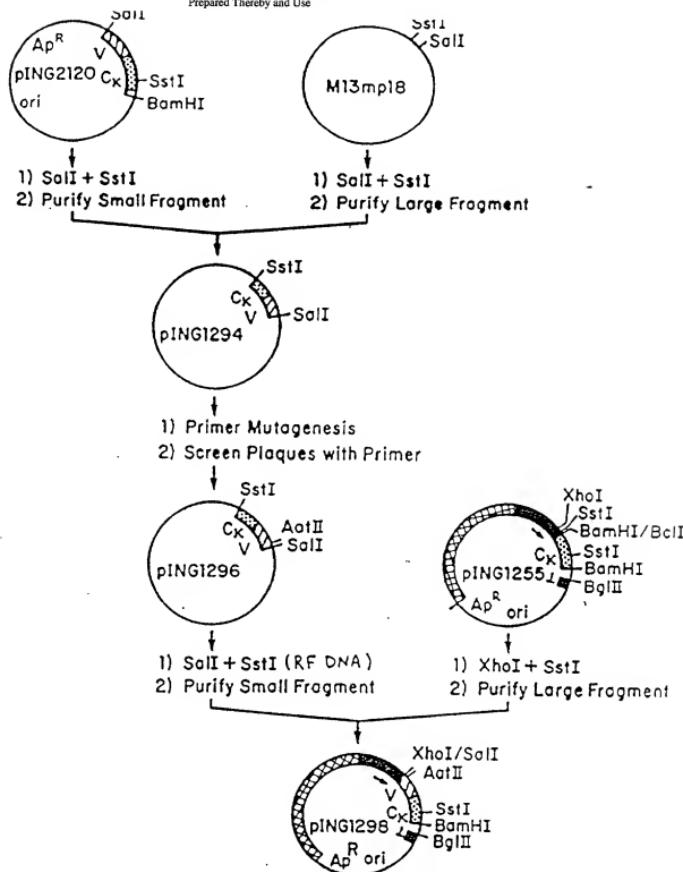


FIG. 25A

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/1MAC;  
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 Prepared Thereby and Use

20060701 Sequence

Signal Sequence  
 Processing Site

The diagram shows a DNA sequence with the following sequence labels:

- 5' ATA ATG TCC AGA CGT CAA ATT GTT 3'
- 3' TTT TAT GAT GCT TCA AGC TTC CGC CTA ATC AGT GCT TCA GTC ATA ATG TCC AGA CAA ATT GTT CTC TCC CAG TCT CCA GCA

A bracket labeled "Signal Sequence Processing Site" spans the first 12 bases (ATATATGTCAG).

A bracket labeled "AciII" spans the sequence AGA CGT CAA ATT GTT.

Below the sequence, the amino acid translation is given:

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Ile Ser Ala Ser Val Ile Met Ser Arg Gly Gln Ile Val Leu Ser Gln Ser Pro Ala

F/G.25B

205030 - Shodhganga

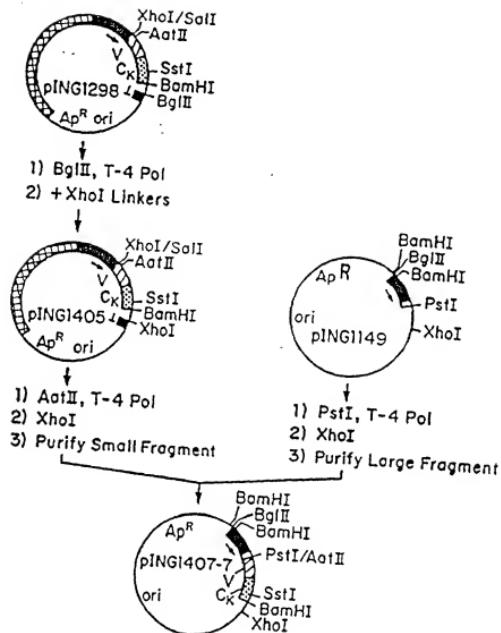


FIG. 25C

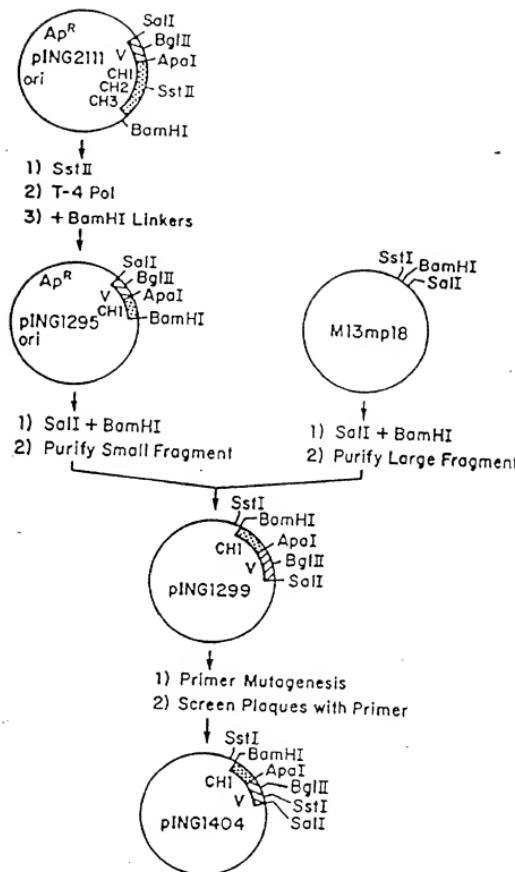


FIG. 26A

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610.003000/UMAC  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
Title: Modular Assembly of Antibody Genes, Antibodies  
Prepared Thereby and Use

Signal Sequence  
Processing Site

Met Asp Trp Leu Ile Asn Leu Leu Phe Leu Met Ala Ala Ala Gln Ser Ala Gln Ile Gln Leu Val Gln Ser Gly Pro Glu  
ATG GAT TGG CTG TGG AAC TTG CTA TTC CTG ATG GCA GCT GCC CAA AGT GCC CAA GCA CAG ATC CAG TCG GAG CAG TGT GGA CCT GAG  
5' AA AGT GCC CGA GCT CGA ATC CAG TCG GT 3'  
SstI

*F16.26B*

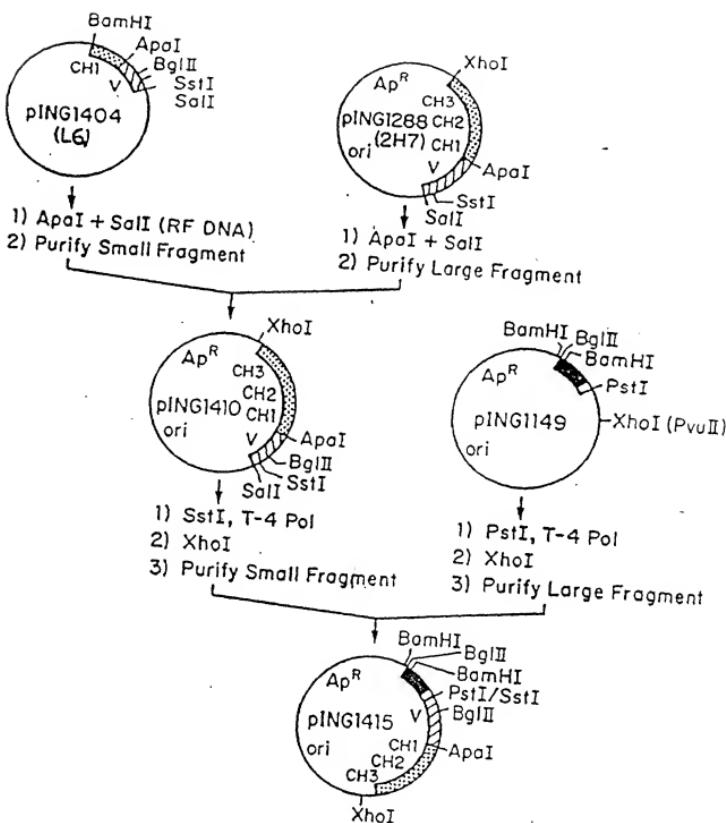


FIG. 26C

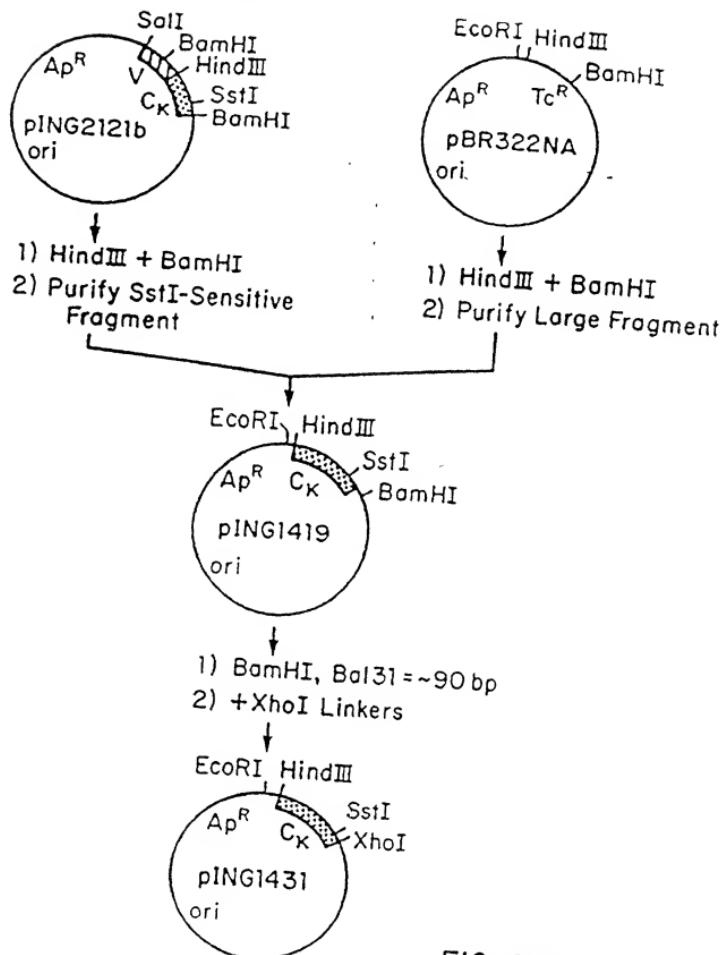
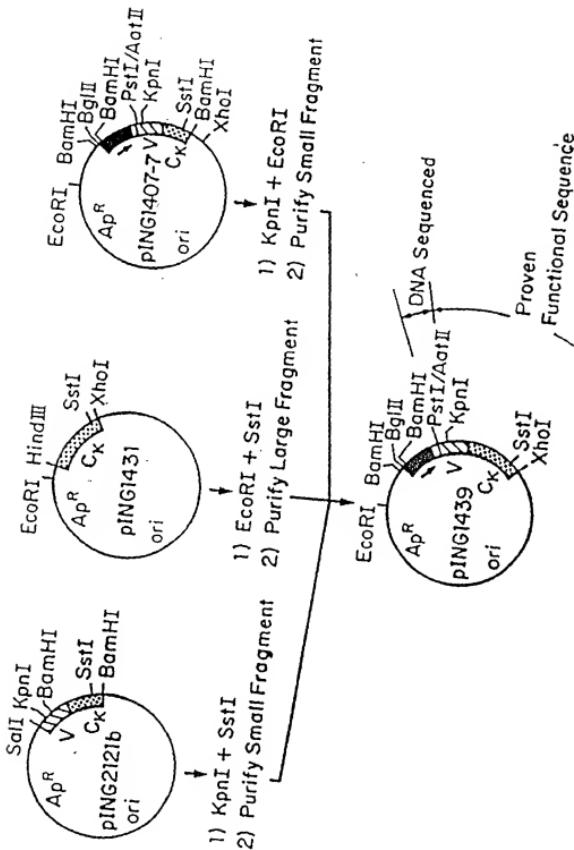


FIG. 27A



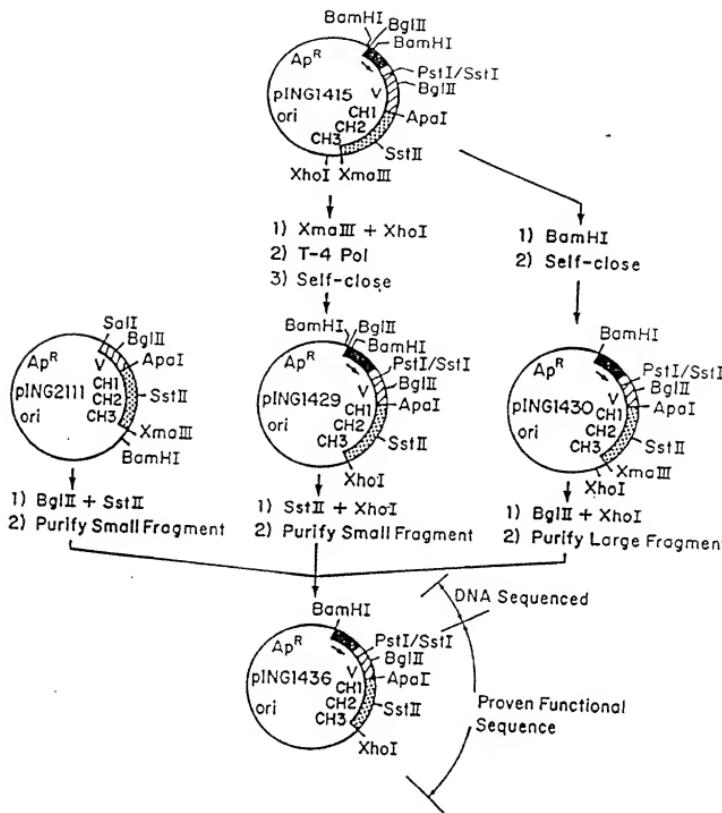


FIG. 28

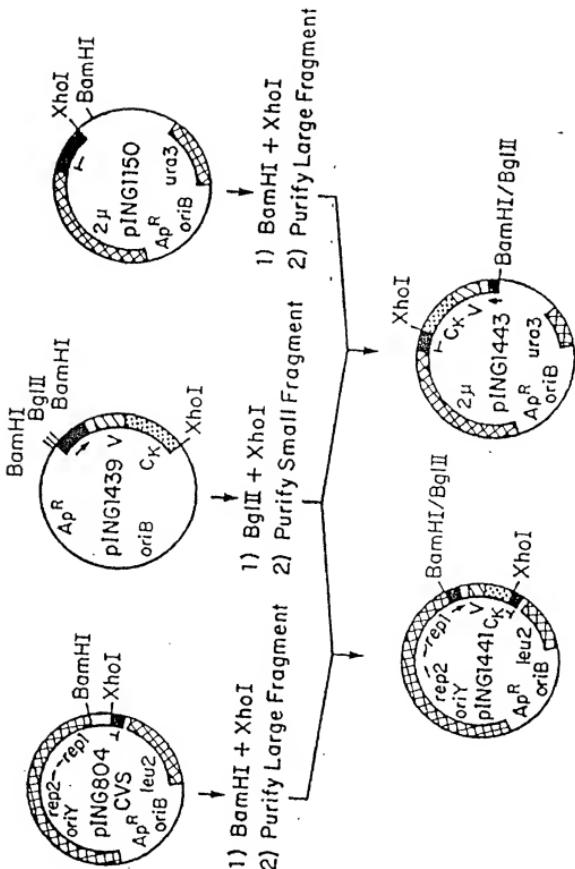
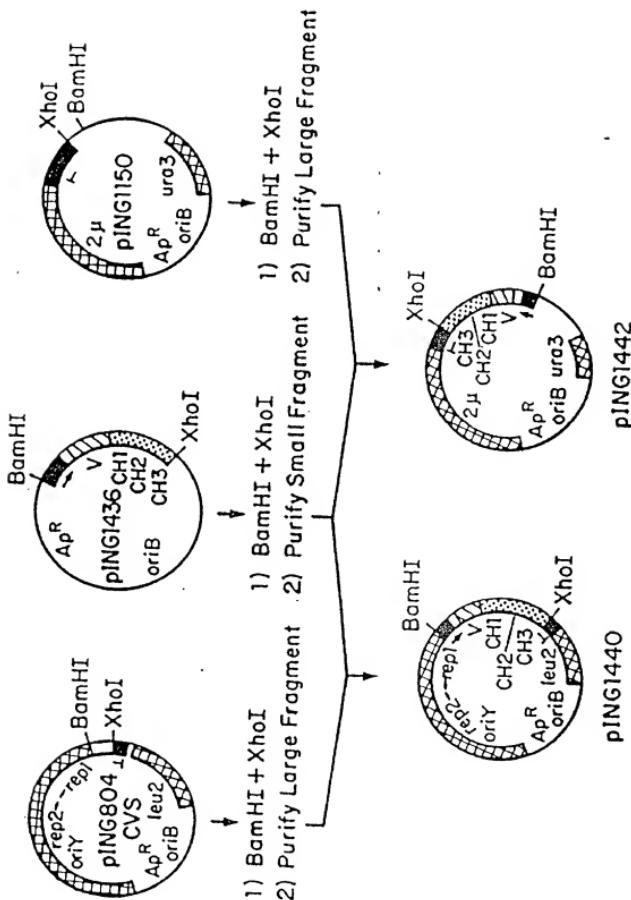
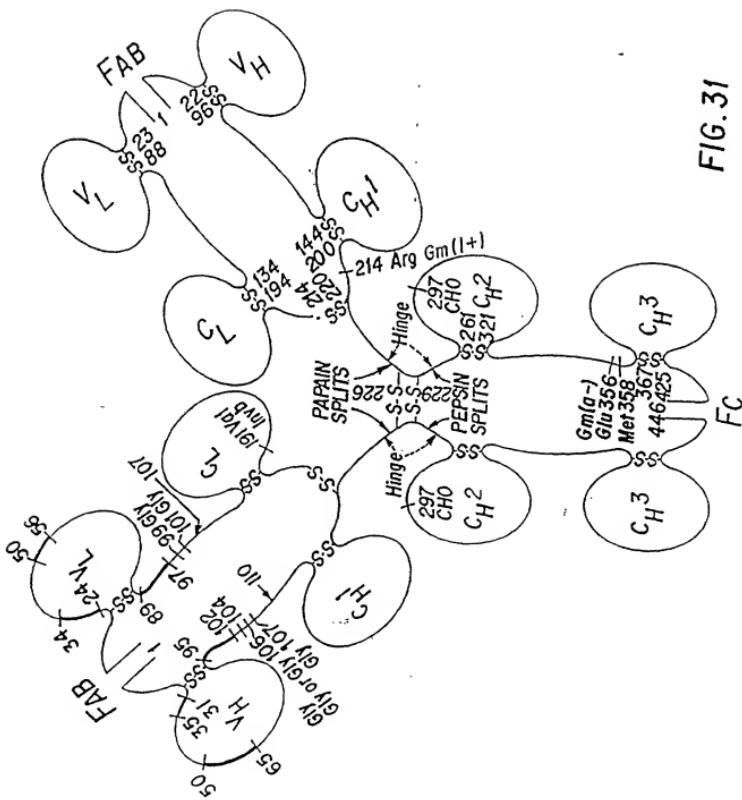


FIG. 29



**FIG. 30**

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Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610.0050001/UMAC;  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
Title: Modular Assembly of Antibody Genes, Antibodies  
Prepared Thereby and Use

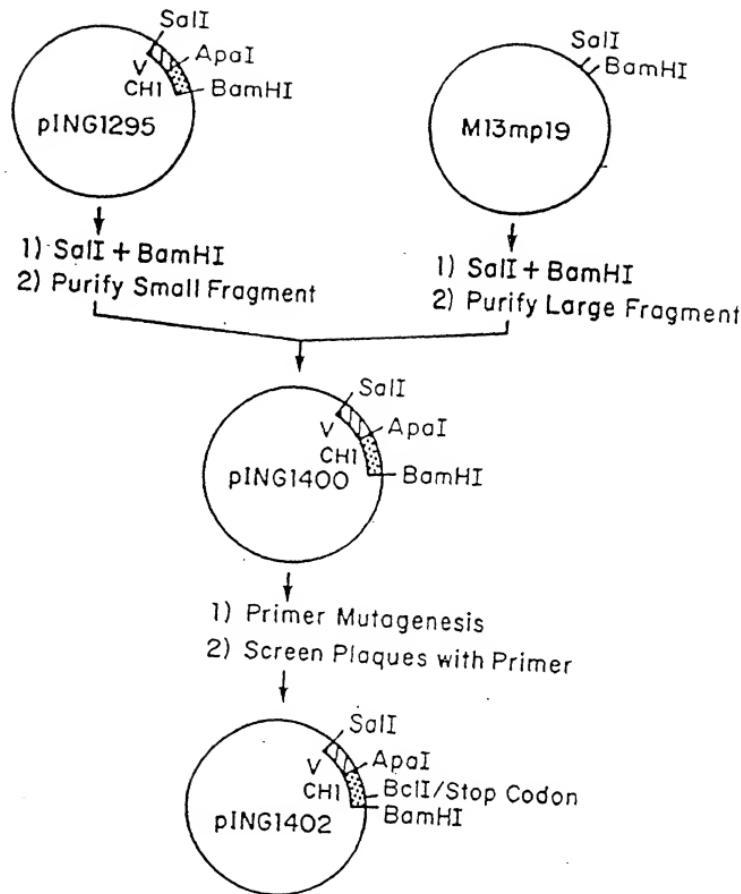


FIG. 32A

Appl. No. To Be Assigned, Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/UMAC,  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes, Antibodies  
 Prepared Thereby and Use

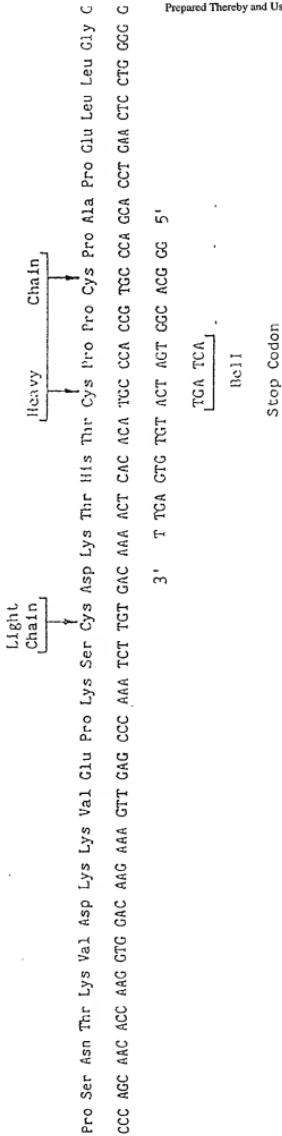


FIG. 32B

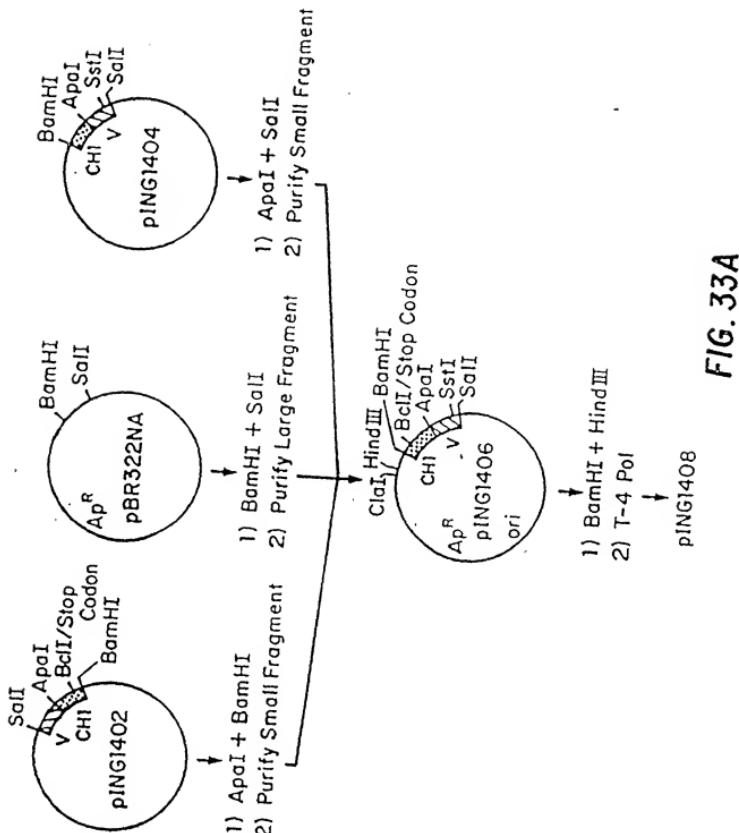


FIG. 33A

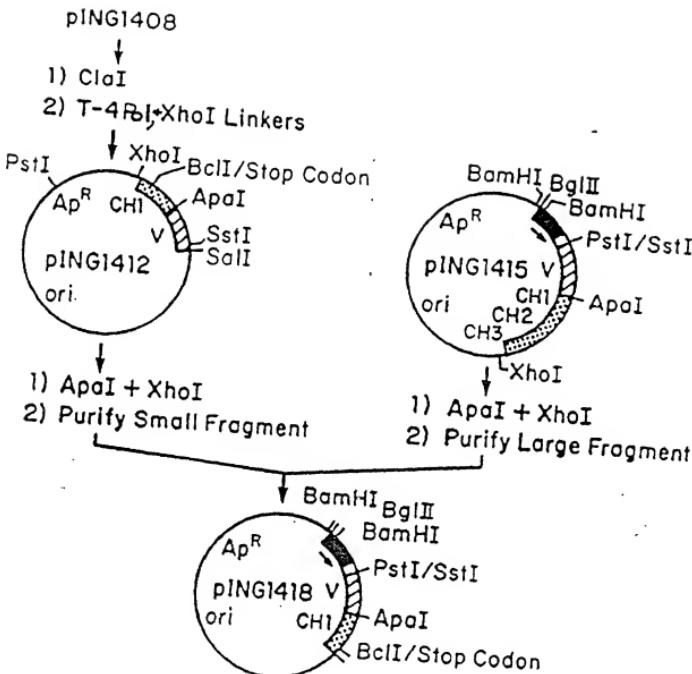


FIG. 33B

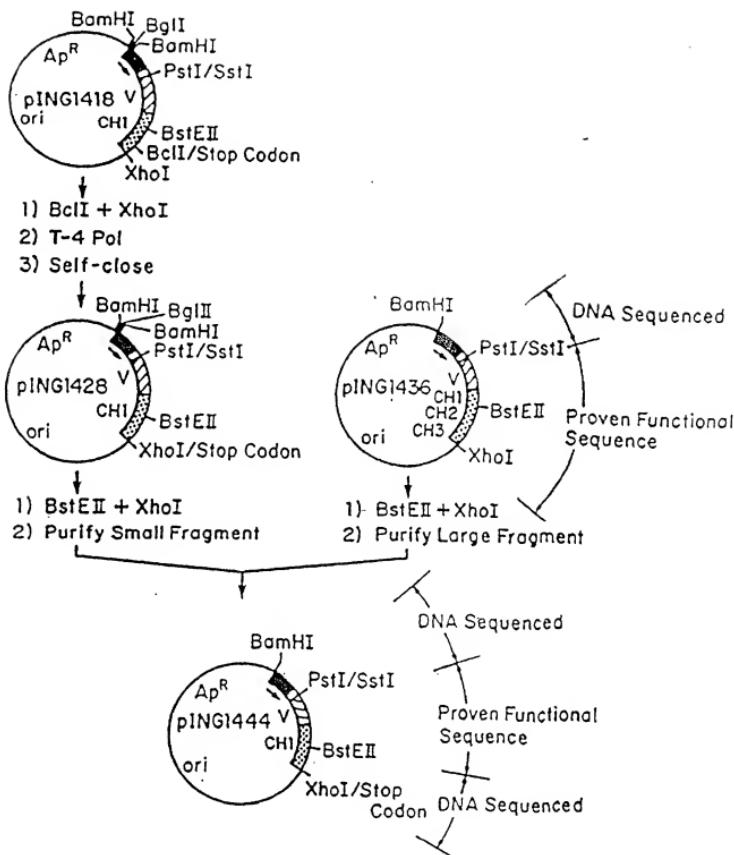


FIG. 34

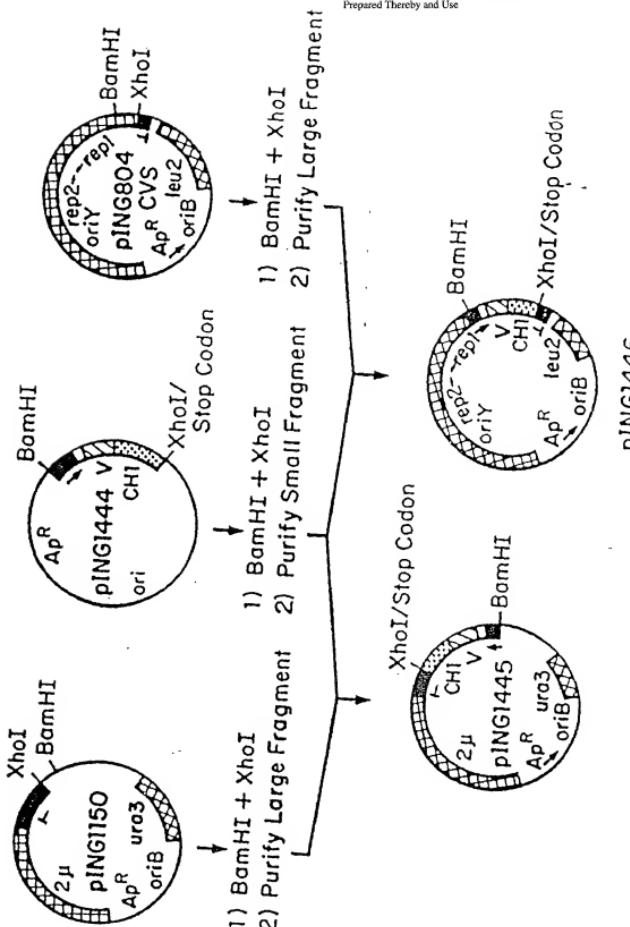


FIG. 35

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
 Dkt. No. 0610.005000/MA/C  
 Inventor(s): Robinson et al.; Tel: 202/371-2600  
 Title: Modular Assembly of Antibody Genes. Antibodies  
 Prepared Thereby and Use

DraI

TTT AAA AGG AAA TTT TTT CTT ATA AAA

CCC AAA TTA TCC AAT CAT CAG TAT TAC AAA ATG TTT CAA CCG TAA TAC ATT TAA CAT TTC

ACC CTT GAA CTG ATC TTA TTT TTT GAC CAC ACT CCC CTT GGT TTT TCA CCA AAA CTG AGT

NdeI

TTC ATT TTT GTT GAA AAA TTT GTC CCT GCG ACA TCG GGC ATA TGG AAC GAT AAA TGC CCA

1

MET Lys Tyr Leu Leu Pro Thr Ala Ala Ala  
 TGA AAA TTC TAT TTC AAG GAG ACA GTC ATA ATG AAA TAC CTA TTG CCT ACG GCA GCC GCT

HaeIII

90

Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala MET Ala Ala Asn Thr Gly Gly Tyr Ala Thr  
 GGA TTG TTA TTA CTC CCT GCC CAA CCA GCG ATG GCC GCA AAT ACG GGT GGC TAT GCC ACC

FIG. 36 A

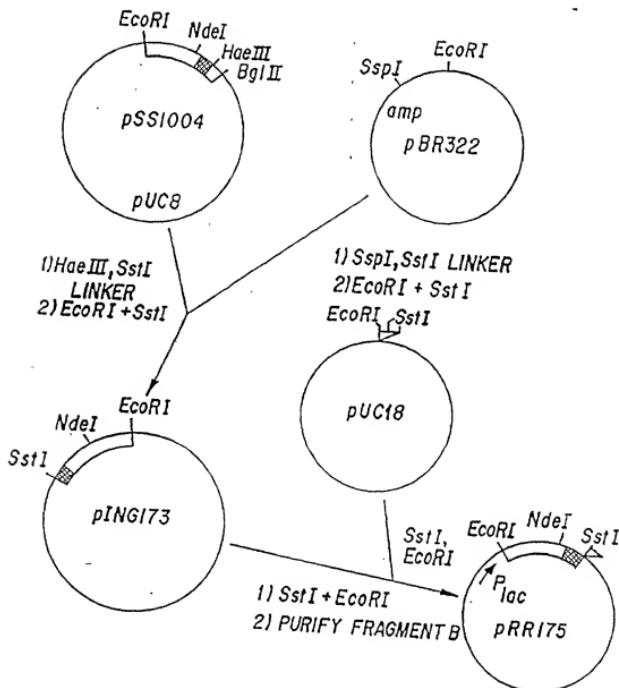


FIG. 36B

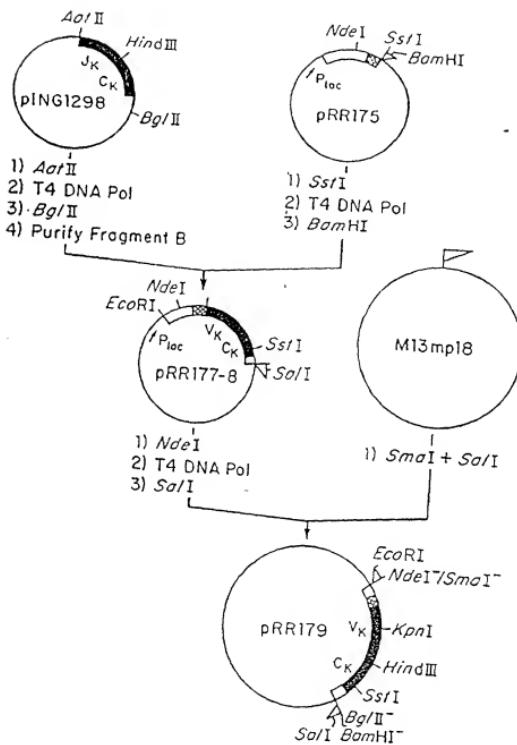
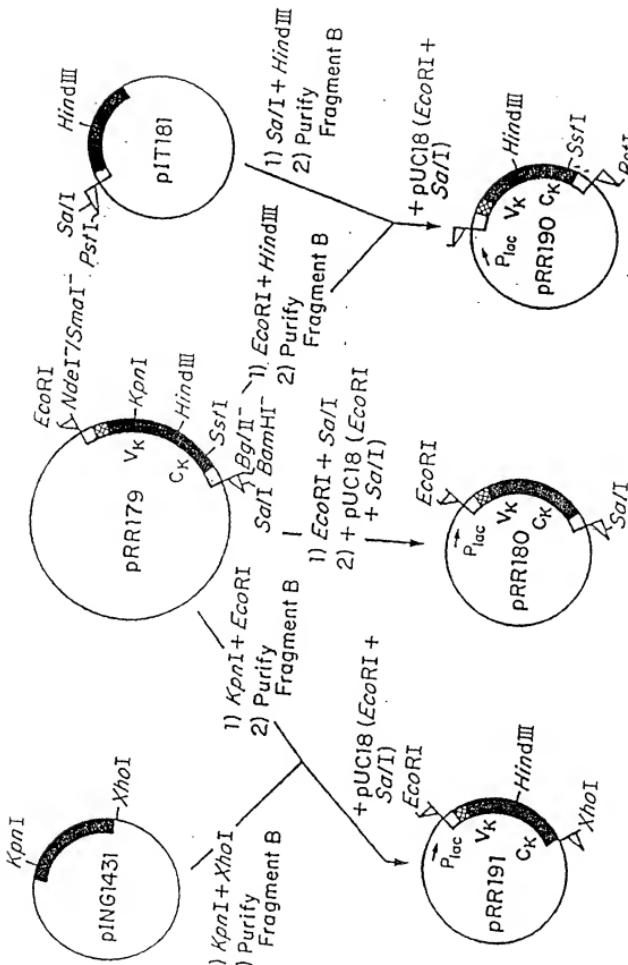


FIG. 37A

2025 RELEASE UNDER E.O. 14176



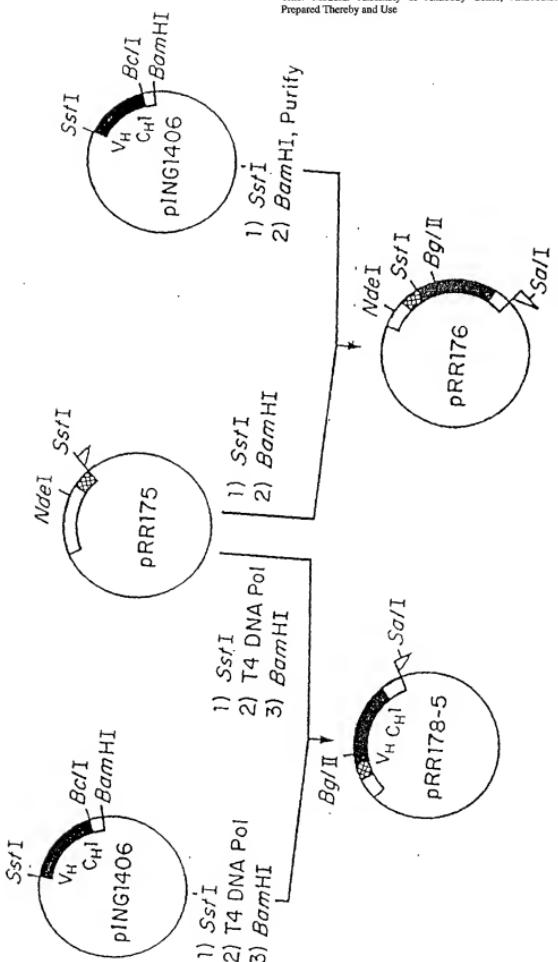


FIG. 38A

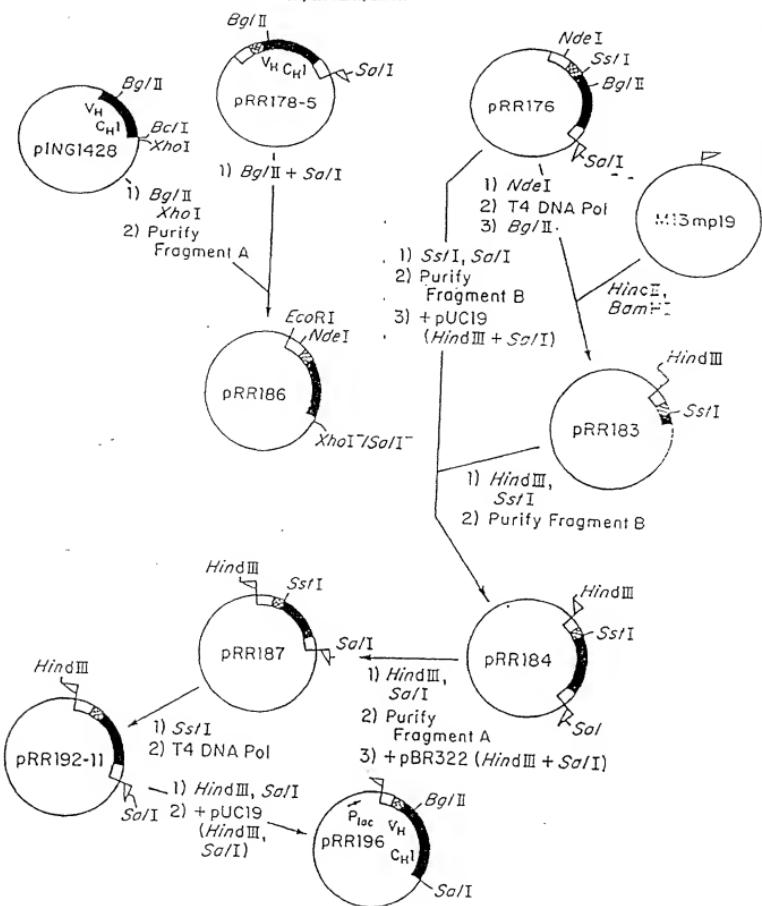


FIG. 38B

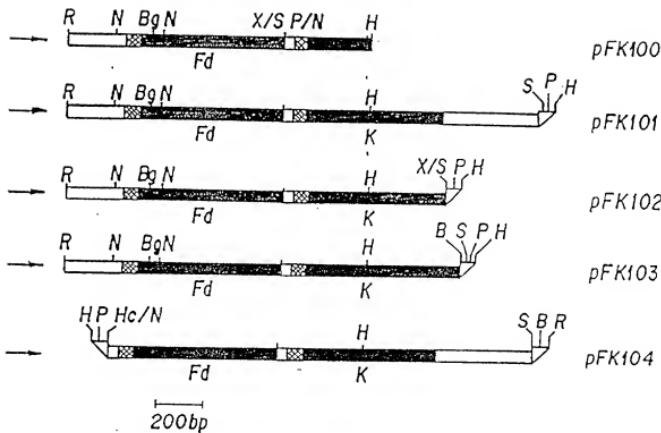


FIG. 39

2005010 - SECOND DRAFT

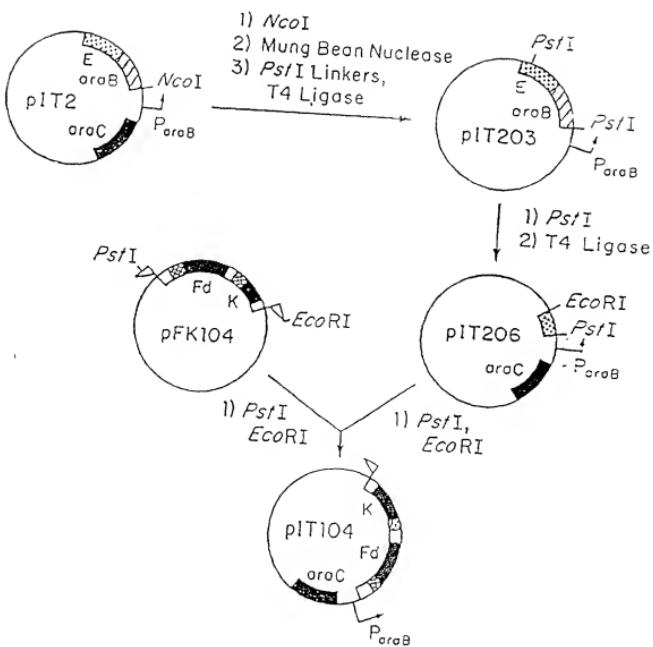


FIG. 40A

Appl. No. To Be Assigned; Group Art Unit: To Be Assigned  
Dkt. No. 0610.005000J/MAC;  
Inventor(s): Robinson et al.; Tel: 202/371-2600  
Title: Modular Assembly of Antibody Genes, Antibodies Prepared Thereby and Use

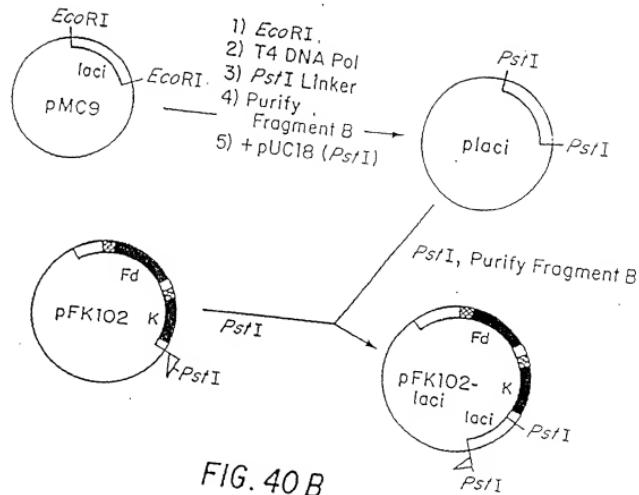


FIG. 40 B

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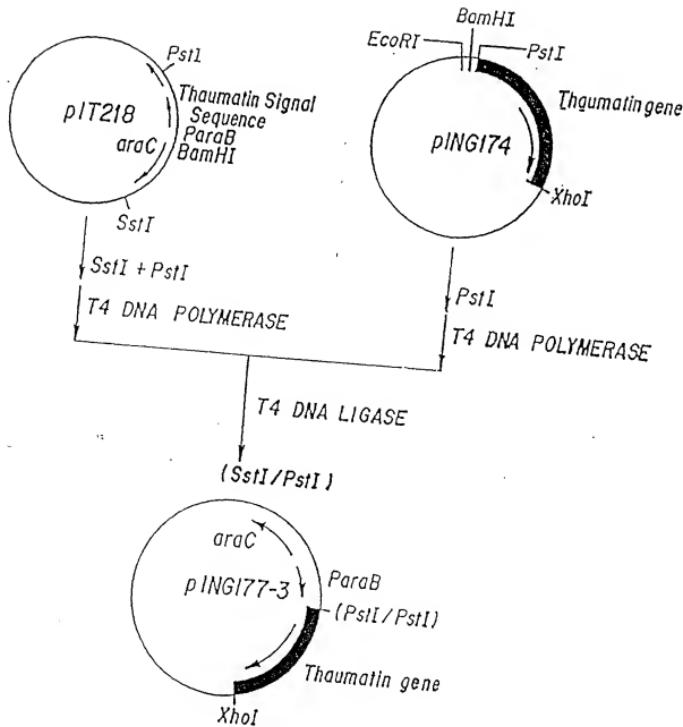


FIG. 41

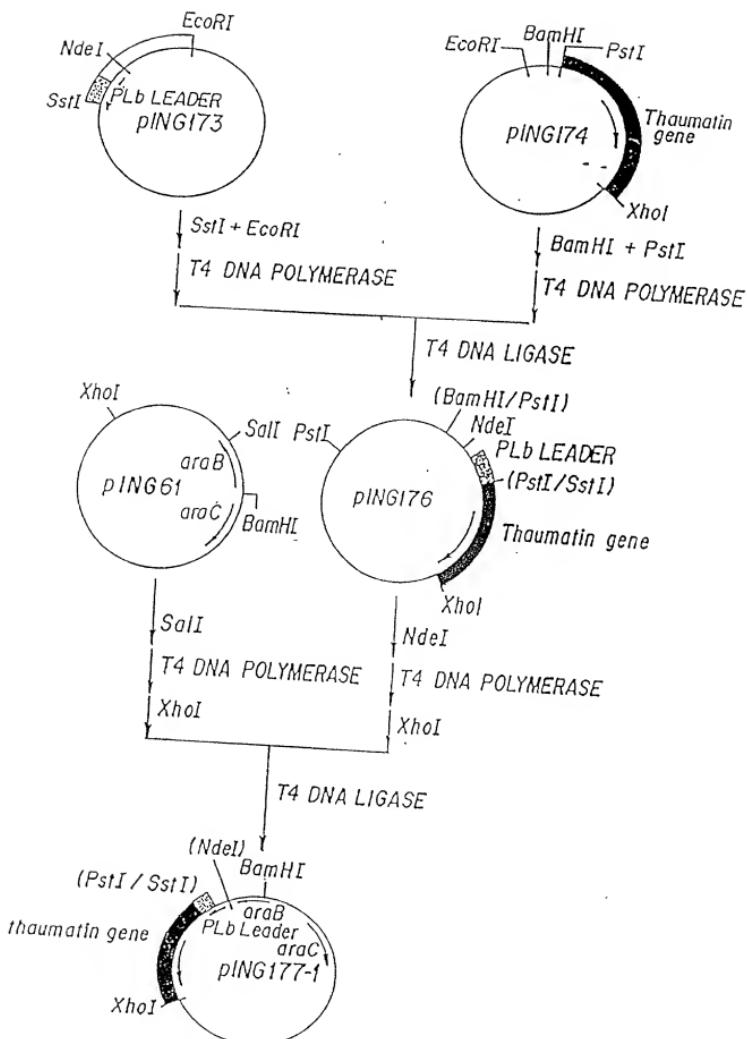


FIG. 42

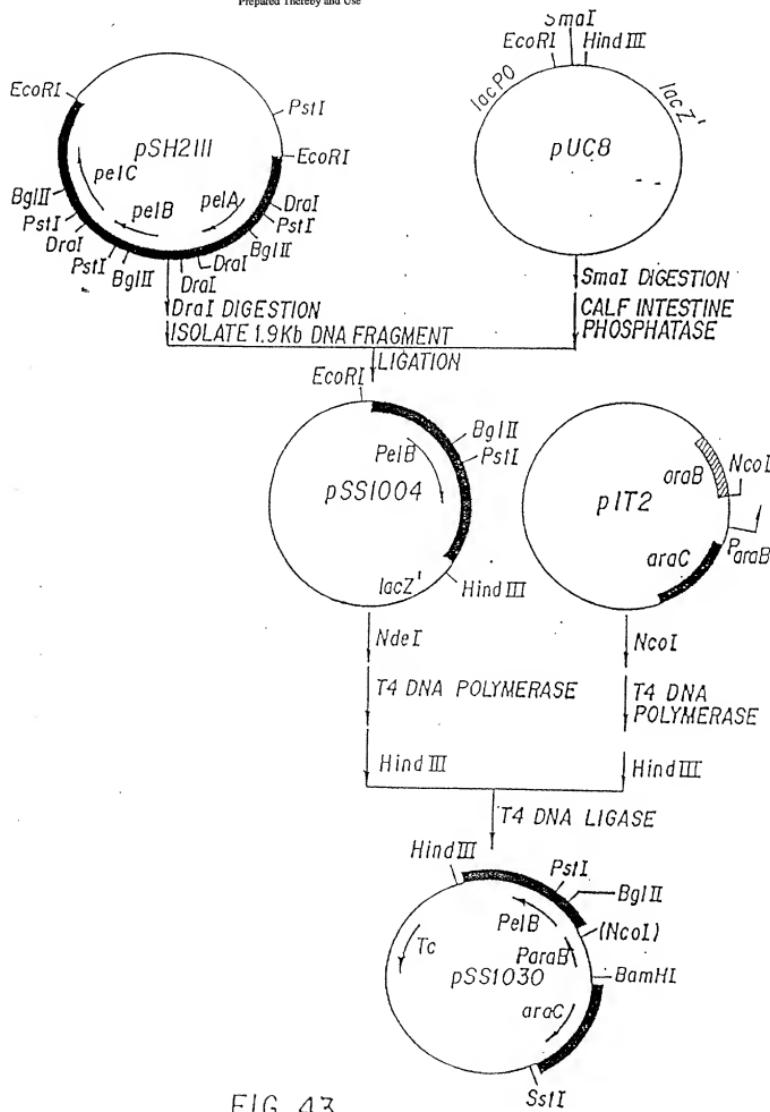


FIG. 43